THE CALIFORNIA STATE WATER PROJECT

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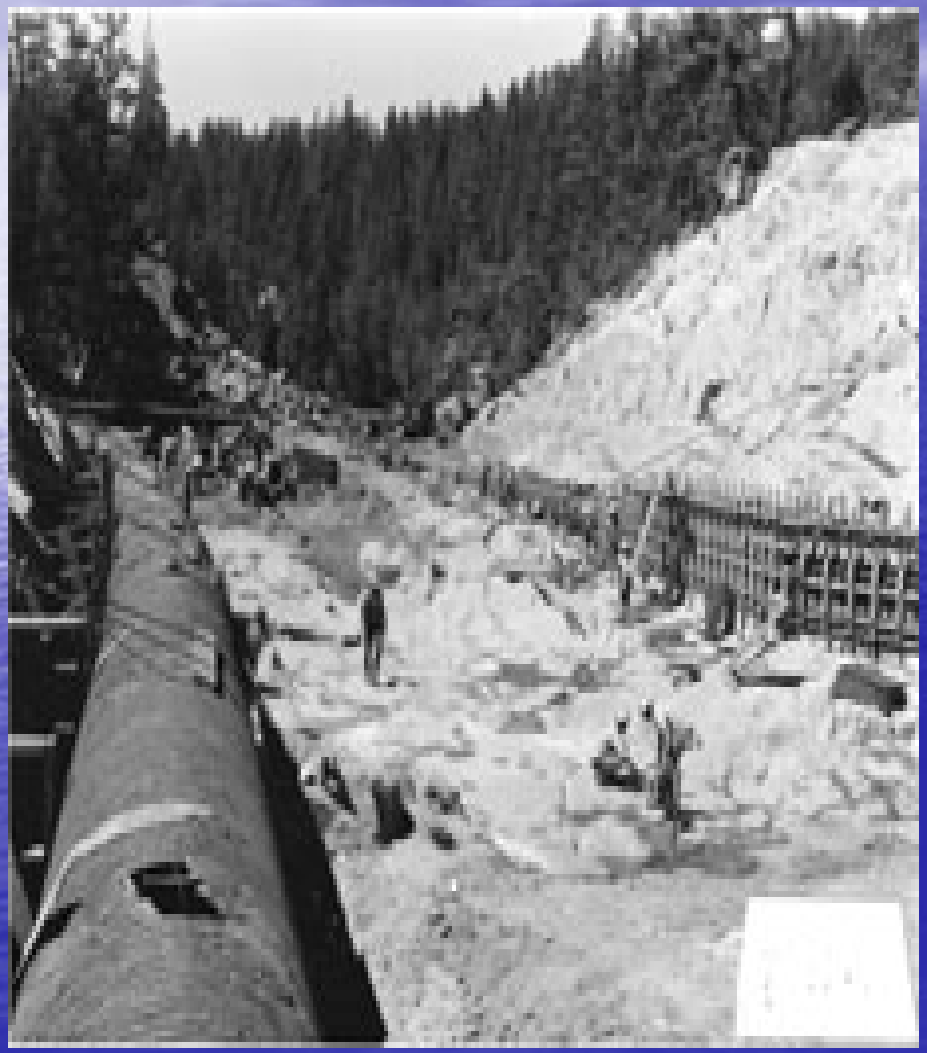
January 14, 2005

AGENDA

- History of the State Water Project
- Mission of the Department of Water Resources and the State Water Project (SWP)
- SWP Operations and Energy Facts

CALIFORNIA WATER PROJECTS

SWP HISTORY



- Water demand and population grew after World War II.
- 1957: First California Water Plan showed need for additional water projects.

SWP HISTORY

- 1960: Voters approved $1.76 billion bond sale to construct facilities.
- About $10 billion has been spent to construct, operate, and maintain the project and service the debt.
- Although the initial facilities were completed in 1973, the expansion of SWP facilities continues.

SWP FACTS

- Planned, designed, built, operated and maintained by the California Department of Water Resources
- SWP is the largest state-built multipurpose water project in the U.S.

SWP PURPOSE

- California's water supply varies from year to year, season to season, and area to area.
- The major water sources are in Northern California, while the major urban centers and agricultural lands are in the northern Bay Area, Central Valley, and Southern California.
- Seventy percent of the total stream runoff is north of Sacramento, but 80 percent of the water demand is south of that city.

DWR's MISSION

- "To manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments."

- Goal 2: Plan, design, construct, operate, and maintain the State Water Project to supply good quality water for municipal, industrial, agricultural, and recreational uses and for fish and wildlife protection and enhancement.

SWP STRATEGIES

- Assessment of the Water Supply Reliability of the SWP.
- Planning for SWP Supply Augmentation.
- Identification of Environmental Measures that Maximize Water Use Efficiency.
- Design and Construction of New SWP Facilities and Major Modifications to Existing Facilities.
- Operation and Maintenance of the SWP with Maximum Flexibility and Reliability.
- Monitoring and Complying with All Applicable Regulations and Standards Affecting Management of the SWP.
- Management of the SWP According to Sound Economic and Fiscally Responsible Policies.

DESCRIPTION OF SWP

State Water Contractors

- 29 water contractors
- 900,000 acres of crops
- 20 million people

SWP Water Deliveries

- Table 'A' amounts in water supply contracts of 4.2 MAF
- Average Table 'A' allocation is 3.0 MAF
- Water use distribution about 50/50 agriculture urban

SWP Facilities

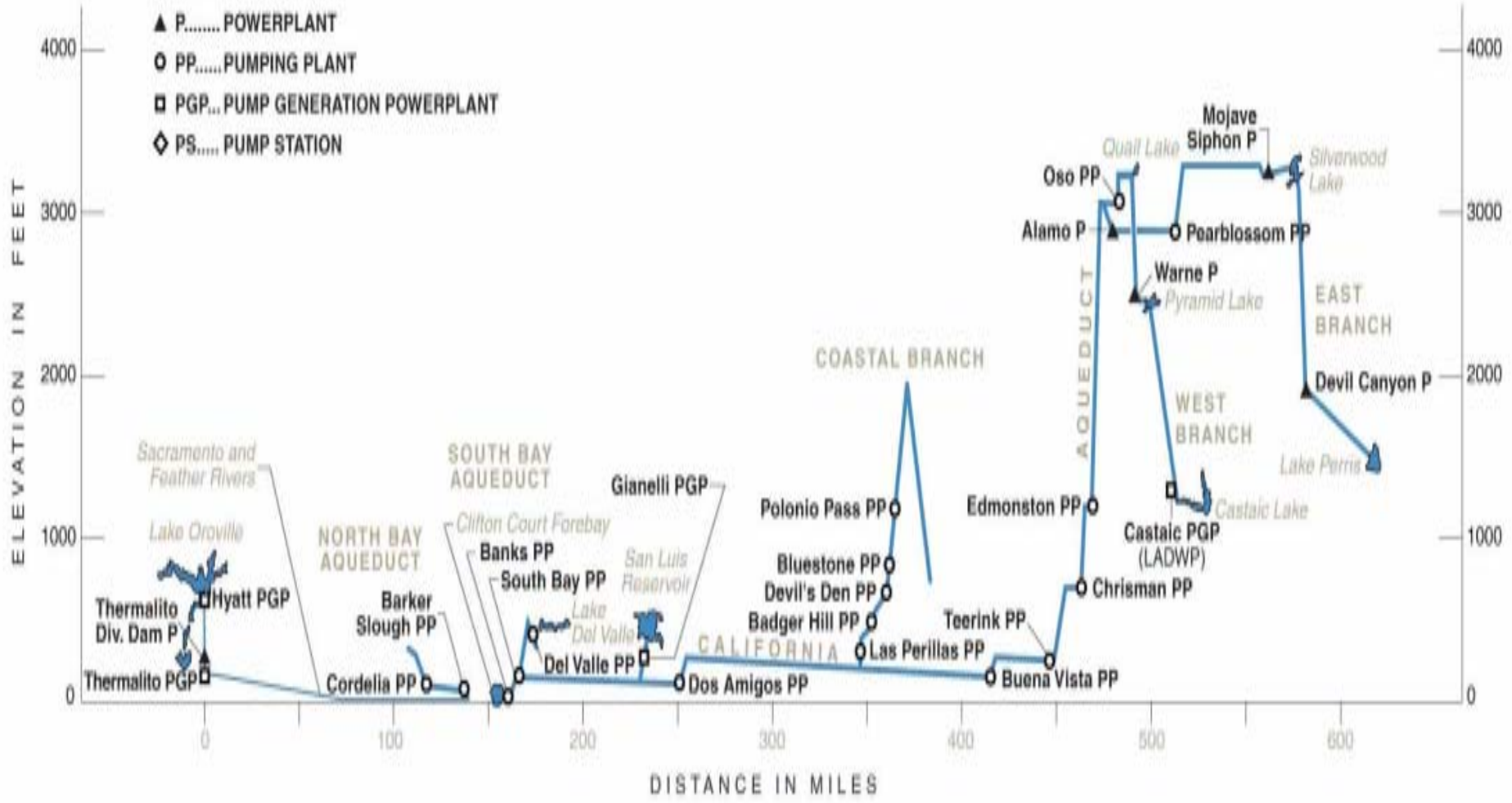
- 30 storage facilities
- 29 pumping and generating plants
- 674 miles of canals and pipelines

SWP Financing

- The State general fund financed the initial allocation for construction
- 29 water contractors are repaying the bonds with interest
- All design, operation, maintenance and administrative costs paid by water contractors

CALIFORNIA STATE WATER PROJECT

SWP PROFILE


P..... POWERPLANT
PP..... PUMPING PLANT
PGP... PUMP GENERATION POWERPLANT
PS..... PUMP STATION
ELEVATION IN FEET
4000
3000
2000
1000
0
DISTANCE IN MILES
0
100
200
300
400
500
600
Sacramento and Feather Rivers
Lake Oroville
Thermalito Div. Dam P
Hyatt PGP
Thermalito PGP
NORTH BAY AQUEDUCT
Barker Slough PP
Cordelia PP
SOUTH BAY AQUEDUCT
Clifton Court Forebay
Banks PP
South Bay PP
Lake Del Valle
Del Valle PP
San Luis Reservoir
Gianelli PGP
Dos Amigos PP
COASTAL BRANCH
CALIFORNIA AQUEDUCT
Polonio Pass PP
Bluestone PP
Devil's Den PP
Badger Hill PP
Las Perillas PP
Teerink PP
Buena Vista PP
Edmonston PP
Chrisman PP
Castaic PGP (LADWP)
Castaic Lake
WEST BRANCH
EAST BRANCH
Mojave Siphon P
Quail Lake
Silverwood Lake
Oso PP
Alamo P
Pearblossom PP
Warne P
Pyramid Lake
Devil Canyon P
Lake Perris

SWP DELIVERIES

- With its existing facilities and average hydrology, the SWP average allocation is 3.0 MAF

- At full capacity, the SWP would deliver 4.2 MAF

SWP PUMPING AND GENERATING

- SWP is the single largest power consumer in California
  - Installed pumping capacity is approximately 2,600MW (highest peak load to date is 2,200MW)
- SWP is the fourth largest power generator in California
  - Installed generation capacity is approximately 1,500MW

NORTH OF DELTA OPERATIONS

- Preserve water supply within operational constraints of:
  - flood control
  - environmental and fisheries protection

- Within operating constraints, release water to Delta for SWP deliveries
- Power generation at Oroville is ancillary to meeting environmental needs, fishery protection, and preserving water supply

SOUTH OF DELTA OPERATIONS

- When available, deliver water to customers as they demand
- Minimize on-peak pumping

- Maximize on-peak power recovery that does not interfere with deliveries

SWP ENERGY BALANCE

- In wet years, SWP loads and resources are more closely matched since SWP water source is Oroville

- In dry years, SWP “wheels” water (transfers) for SWP contractors. Non-Oroville sourced water means SWP must acquire additional power resources to meet loads

CONCLUSION

- DWR's mission is "... supply good quality water for municipal, industrial, agricultural, and recreational uses and for fish and wildlife protection and enhancement"
- There is no "energy" in DWR's mission, energy merely enables DWR to meet SWP contractual requirements for water deliveries
- SWP contractors pay for all costs associated with power facilities and water deliveries , their incentive is to keep costs down by minimizing their demand for water deliveries that require on-peak energy

QUESTIONS